Customer No.: 31561 Docket No.: 11064-US-PA

Application No.: 10/731,150

To the Claims:

Claim 1. (currently amended) A semiconductor cleaning method, comprising

consisting of:

providing a semiconductor wafer;

forming a first layer of oxide over the semiconductor wafer;

forming a floating gate layer over the first layer of oxide;

forming a second layer of oxide over the floating gate layer;

etching the first layer of oxide, the floating gate layer, and the second layer of

oxide to form a gate structure;

performing a cleaning process to the semiconductor wafer, wherein the cleaning

process is consisting of following steps:

rinsing [[the]]a semiconductor wafer including [[the]]a gate structure using an

ozonated de-ionized (DI) water;

further rinsing the ozonated water-rinsed semiconductor wafer using a [[first]]

cleaning solution, wherein the [[first]] cleaning solution is a HF:HCl:H2O solution or at

least one of  $H_2O:H_2O_2:NH_4OH$  solution and  $H_2O:H_2O_2:HCl$  solution; and

additionally rinsing the further rinsed semiconductor wafer using the ozonated DI

water.

Claim 2. (canceled).

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Claim 3. (original) The method of claim 1, wherein the semiconductor wafer has

formed therein at least one device.

Claim 4. (original) The method of claim 1, wherein the semiconductor wafer has

accumulated thereon contaminants accumulated during at least one previous processing

step.

Claim 5. (previously presented) The method of claim 4, wherein the contaminants

comprise polymer.

Claim 6. (original) The method of claim 5, wherein the polymer comprises

photoresist.

Claims 7-11(canceled)

Claim 12. (original) The method of claim 1, wherein the concentration of ozone in

the ozonated DI water is within the range of 10-80 ppm.

Claim 13. (original) The method of claim 12, wherein the concentration of ozone

in the ozonated DI water is 40 ppm.

Claims 14-20. (canceled)

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